



SEQUENCE LISTING

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<120> A NOVEL ANDROGEN-INDUCED SUPPRESSOR OF CELL
PROLIFERATION AND USES THEREOF

<130> 24815-526

<140> US 09/512,581

<141> 2000-02-24

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<151> 1999-02-24

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<170> PatentIn Ver. 2.0

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 Ser Asp Phe Phe Leu Lys His Pro Gly Lys Asp Val Arg Leu Leu Val
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 Ala Cys Cys Leu Ala Asp Ile Phe Arg Ile Tyr Ala Pro Glu Ala Pro
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 Tyr Thr Ser Pro Asp Lys Leu Lys Asp Ile Phe Met Phe Ile Thr Arg
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 Phe Glu Leu Glu Asp Ser Asn Glu Ile Phe Thr Gln Leu Tyr Arg Thr
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Leu	Met	Leu	Gly	Lys	Thr	Ser	Ile	Ser	Asp	Leu	Ser	Glu	His	Val	Phe	245	250	255	
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Val	Leu	Pro	Gln	Leu	Glu	Phe	Lys	Leu	Lys	Ser	Asn	Asp	Asn	Glu	Glu	275	280	285	
Arg	Leu	Gln	Val	Val	Lys	Leu	Leu	Ala	Lys	Met	Phe	Gly	Ala	Lys	Asp	290	295	300	
Ser	Glu	Leu	Ala	Ser	Gln	Asn	Lys	Pro	Leu	Trp	Gln	Cys	Tyr	Leu	Gly	305	310	315	320
Arg	Phe	Asn	Asp	Ile	His	Val	Pro	Ile	Arg	Leu	Glu	Cys	Val	Lys	Phe	325	330	335	
Ala	Ser	His	Cys	Leu	Met	Asn	His	Pro	Asp	Leu	Ala	Lys	Asp	Leu	Thr	340	345	350	
Glu	Tyr	Leu	Lys	Val	Arg	Ser	His	Asp	Pro	Glu	Glu	Ala	Ile	Arg	His	355	360	365	
Asp	Val	Ile	Val	Ser	Ile	Val	Thr	Ala	Ala	Lys	Lys	Asp	Ile	Leu	Leu	370	375	380	
Val	Asn	Asp	His	Leu	Leu	Asn	Phe	Val	Arg	Glu	Arg	Thr	Leu	Asp	Lys	385	390	395	400
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Ile	Ala	Trp	Ile	Lys	Asp	Lys	Leu	Leu	His	Ile	Tyr	Tyr	Gln	Asn	Ser	435	440	445	
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Pro Gly Val Lys Glu Ile Ser Asp Lys Ile Ser Lys Glu Glu Met Val
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Ser Glu Glu Glu Lys Glu Leu Tyr Leu Asn Leu Ala Leu His Leu Ala
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Phe Glu Leu Glu Asp Ser Asn Glu Ile Phe Thr Gln Leu Tyr Arg Thr
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Gln Glu Leu Leu Asp Thr Val Leu Val Asn Leu Val Pro Ala His Lys	
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His	Ile	Arg	Ser	Ala	Leu	Leu	Pro	Val	Leu	His	His	Lys	Ser	Lys	Lys	
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 caacccggag gggtagaaat atttctgtc atg gct cat tca aag act agg acc 173
 Met Ala His Ser Lys Thr Arg Thr
 1 5

aat gat gga aaa att aca tat ccg cct ggg gtc aag gaa ata tca gat 221
 Asn Asp Gly Lys Ile Thr Tyr Pro Pro Gly Val Lys Glu Ile Ser Asp
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aaa ata tct aaa gag gag atg gtg aga cga tta aag atg gtt gtg aaa 269
 Lys Ile Ser Lys Glu Glu Met Val Arg Arg Leu Lys Met Val Val Lys
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act ttt atg gat atg gac cag gac tct gaa gaa gaa aag gag ctt tat 317
 Thr Phe Met Asp Met Asp Gln Asp Ser Glu Glu Glu Lys Glu Leu Tyr
 45 50 55

tta aac cta gct tta cat ctt gct tca gat ttt ttt ctc aag cat cct 365
 Leu Asn Leu Ala Leu His Leu Ala Ser Asp Phe Phe Leu Lys His Pro
 60 65 70

ggt aaa gat gtt cgc tta ctg gta gcc tgc tgc ctt gct gat att ttc 413
 Gly Lys Asp Val Arg Leu Leu Val Ala Cys Cys Leu Ala Asp Ile Phe

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agg att tat gct cct gaa gct cct tac aca tcc cct gat aaa cta aag			461
Arg Ile Tyr Ala Pro Glu Ala Pro Tyr Thr Ser Pro Asp Lys Leu Lys			
90	95	100	
gat ata ttt atg ttt ata aca aga cag ttg aag ggg cta gag gat aca			509
Asp Ile Phe Met Phe Ile Thr Arg Gln Leu Lys Gly Leu Glu Asp Thr			
105	110	115	120
aag agc cca caa ttc aat agg tat ttt tat tta ctt gag aac att gct			557
Lys Ser Pro Gln Phe Asn Arg Tyr Phe Tyr Leu Leu Glu Asn Ile Ala			
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tgg gtc aag tca tat aac ata tgc ttt gag tta gaa gat agc aat gaa			605
Trp Val Lys Ser Tyr Asn Ile Cys Phe Glu Leu Glu Asp Ser Asn Glu			
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Ile Phe Thr Gln Leu Tyr Arg Thr Leu Phe Ser Val Ile Asn Asn Gly			
	155	160	165
cac aat cag aaa gtc cat atg cac atg gta gac ctt atg agc tct att			701
His Asn Gln Lys Val His Met His Met Val Asp Leu Met Ser Ser Ile			
	170	175	180
att tgt gaa ggt gat aca gtg tct cag gag ctt ttg gat acg gtt tta			749
Ile Cys Glu Gly Asp Thr Val Ser Gln Glu Leu Leu Asp Thr Val Leu			
185	190	195	200
gta aat ctg gta cct gct cat aag aat tta aac aag caa gca tat gat			797
Val Asn Leu Val Pro Ala His Lys Asn Leu Asn Lys Gln Ala Tyr Asp			
	205	210	215
ttg gca aag gct tta ctg aag agg aca gct caa gct att gag cca tat			845
Leu Ala Lys Ala Leu Leu Lys Arg Thr Ala Gln Ala Ile Glu Pro Tyr			
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att acc act ttt ttt aat cag gtt ctg atg ctt ggg aaa aca tct atc			893
Ile Thr Thr Phe Phe Asn Gln Val Leu Met Leu Gly Lys Thr Ser Ile			
	235	240	245
agc gat ttg tca gag cat gtc ttt gac tta att ttg gag ctc tac aat			941
Ser Asp Leu Ser Glu His Val Phe Asp Leu Ile Leu Glu Leu Tyr Asn			
	250	255	260
att gat agt cat ttg ctg ctc tct gtt tta ccc cag ctt gaa ttt aaa			989
Ile Asp Ser His Leu Leu Leu Ser Val Leu Pro Gln Leu Glu Phe Lys			
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tta aag agc aat gat aat gag gag cgc cta caa gtt gtt aaa cta ctg			1037
Leu Lys Ser Asn Asp Asn Glu Glu Arg Leu Gln Val Val Lys Leu Leu			
	285	290	295
gca aaa atg ttt ggg gca aag gat tca gaa ttg gct tct caa aac aag			1085
Ala Lys Met Phe Gly Ala Lys Asp Ser Glu Leu Ala Ser Gln Asn Lys			
	300	305	310

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Pro Leu Trp Gln Cys Tyr Leu Gly Arg Phe Asn Asp Ile His Val Pro	
315 320 325	
atc cgc ctg gaa tgt gtg aaa ttt gct agc cat tgt ctc atg aac cat	1181
Ile Arg Leu Glu Cys Val Lys Phe Ala Ser His Cys Leu Met Asn His	
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cct gat tta gca aaa gac tta aca gag tat ctt aaa gtg agg tca cat	1229
Pro Asp Leu Ala Lys Asp Leu Thr Glu Tyr Leu Lys Val Arg Ser His	
345 350 355 360	
gac cct gag gaa gct att aga cat gat gtt att gtg tca ata gtt aca	1277
Asp Pro Glu Glu Ala Ile Arg His Asp Val Ile Val Ser Ile Val Thr	
365 370 375	
gct gct aaa aag gat att ctt ctg gtc aat gat cac tta ctt aat ttt	1325
Ala Ala Lys Lys Asp Ile Leu Leu Val Asn Asp His Leu Leu Asn Phe	
380 385 390	
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Val Arg Glu Arg Thr Leu Asp Lys Arg Trp Arg Val Arg Lys Glu Ala	
395 400 405	
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Met Met Gly Leu Ala Gln Ile Tyr Lys Lys Tyr Ala Leu Gln Ser Ala	
410 415 420	
gct gga aaa gat gct gca aaa cag ata gca tgg atc aaa gac aaa ttg	1469
Ala Gly Lys Asp Ala Ala Lys Gln Ile Ala Trp Ile Lys Asp Lys Leu	
425 430 435 440	
cta cat ata tat tat caa aat agt att gat gat cga cta ctt gtt gaa	1517
Leu His Ile Tyr Tyr Gln Asn Ser Ile Asp Asp Arg Leu Leu Val Glu	
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cgg atc ttt gct caa tac atg gtt cct cac aat tta gaa act aca gaa	1565
Arg Ile Phe Ala Gln Tyr Met Val Pro His Asn Leu Glu Thr Thr Glu	
460 465 470	
cgg atg aaa tgc tta tat tac ttg tat gcc aca ctg gat tta aat gct	1613
Arg Met Lys Cys Leu Tyr Tyr Leu Tyr Ala Thr Leu Asp Leu Asn Ala	
475 480 485	
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Val Lys Ala Leu Asn Glu Met Trp Lys Cys Gln Asn Leu Leu Arg His	
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caa gta aag gat ttg ctt gac ttg att aag caa ccc aaa aca gat gcc	1709
Gln Val Lys Asp Leu Leu Asp Leu Ile Lys Gln Pro Lys Thr Asp Ala	
505 510 515 520	
agt gtc aag gcc ata ttt tca aaa gtg atg gtt att aca aga aat tta	1757
Ser Val Lys Ala Ile Phe Ser Lys Val Met Val Ile Thr Arg Asn Leu	
525 530 535	

cct gat cct ggt aag gct cag gat ttc atg aag aaa ttc aca cag gtg	1805
Pro Asp Pro Gly Lys Ala Gln Asp Phe Met Lys Lys Phe Thr Gln Val	
540 545 550	
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Leu Glu Asp Asp Glu Lys Ile Arg Lys Gln Leu Glu Val Leu Val Ser	
555 560 565	
cca aca tgc tcc tgc aag cag gct gaa ggt tgt gtg cgt gaa ata act	1901
Pro Thr Cys Ser Cys Lys Gln Ala Glu Gly Cys Val Arg Glu Ile Thr	
570 575 580	
aag aag ttg ggc aac ccc aaa cag cct aca aat cct ttc ctg gaa atg	1949
Lys Lys Leu Gly Asn Pro Lys Gln Pro Thr Asn Pro Phe Leu Glu Met	
585 590 595 600	
atc aag ttt ctc ttg gag agg ata gca cct gtg cac ata gat acc gaa	1997
Ile Lys Phe Leu Leu Glu Arg Ile Ala Pro Val His Ile Asp Thr Glu	
605 610 615	
tct atc agt gct ctt att aaa caa gtg aac aaa tca ata gat gga aca	2045
Ser Ile Ser Ala Leu Ile Lys Gln Val Asn Lys Ser Ile Asp Gly Thr	
620 625 630	
gca gat gat gaa gat gag ggt gtt cca act gat caa gcc atc aga gca	2093
Ala Asp Asp Glu Asp Glu Gly Val Pro Thr Asp Gln Ala Ile Arg Ala	
635 640 645	
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Gly Leu Glu Leu Leu Lys Val Leu Ser Phe Thr His Pro Ile Ser Phe	
650 655 660	
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His Ser Ala Glu Thr Phe Glu Ser Leu Leu Ala Cys Leu Lys Met Asp	
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gat gaa aaa gta gca gaa gct gca cta caa att ttc aaa aac aca gga	2237
Asp Glu Lys Val Ala Glu Ala Ala Leu Gln Ile Phe Lys Asn Thr Gly	
685 690 695	
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Ser Lys Ile Glu Glu Asp Phe Pro His Ile Arg Ser Ala Leu Leu Pro	
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Val Leu His His Lys Ser Lys Lys Gly Pro Pro Arg Gln Ala Lys Tyr	
715 720 725	
gcc att cat tgt atc cat gcg ata ttt tct agt aaa gag acc cag ttt	2381
Ala Ile His Cys Ile His Ala Ile Phe Ser Ser Lys Glu Thr Gln Phe	
730 735 740	
gca cag ata ttt gag cct ctg cat aag agc cta gat cca agc aac ctg	2429
Ala Gln Ile Phe Glu Pro Leu His Lys Ser Leu Asp Pro Ser Asn Leu	
745 750 755 760	
gaa cat ctc ata aca cca ttg gtt act att ggt cat att gct ctc ctt	2477

Glu His Leu Ile Thr Pro Leu Val Thr Ile Gly His Ile Ala Leu Leu	
765	770
775	
gca cct gat caa ttt gct gct cct tgg aaa tct tgg gta gct act ttc	2525
Ala Pro Asp Gln Phe Ala Ala Pro Trp Lys Ser Trp Val Ala Thr Phe	
780	785
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Ile Val Lys Asp Leu Leu Met Asn Asp Arg Leu Pro Gly Lys Lys Thr	
795	800
805	
act aaa ctt tgg gtt cca gat gaa gaa gta tct cct gag aca atg gtc	2621
Thr Lys Leu Trp Val Pro Asp Glu Glu Val Ser Pro Glu Thr Met Val	
810	815
820	
aaa att cag gct att aaa atg atg gtt cga tgg cta ctt gga atg aaa	2669
Lys Ile Gln Ala Ile Lys Met Met Val Arg Trp Leu Leu Gly Met Lys	
825	830
835	840
aat aat cac agt aaa tca gga act tct acc tta aga ttg cta aca aca	2717
Asn Asn His Ser Lys Ser Gly Thr Ser Thr Leu Arg Leu Leu Thr Thr	
845	850
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ata ttg cat agt gat gga gac ttg aca gaa cag ggg aaa att agt aaa	2765
Ile Leu His Ser Asp Gly Asp Leu Thr Glu Gln Gly Lys Ile Ser Lys	
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Pro Asp Met Ser Arg Leu Arg Leu Ala Ala Gly Ser Ala Ile Val Lys	
875	880
885	
ctg gca caa gaa ccc tgt tac cat gaa atc atc aca tta gaa caa tat	2861
Leu Ala Gln Glu Pro Cys Tyr His Glu Ile Ile Thr Leu Glu Gln Tyr	
890	895
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cag cta tgt gca tta gct atc aac gat gaa tgc tat caa gta aga caa	2909
Gln Leu Cys Ala Leu Ala Ile Asn Asp Glu Cys Tyr Gln Val Arg Gln	
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915	920
gtg ttt gcc cag aaa ctt cac aaa ggc ctt tcc cgt tta cgg ctt cca	2957
Val Phe Ala Gln Lys Leu His Lys Gly Leu Ser Arg Leu Arg Leu Pro	
925	930
935	
ctt gag tat atg gca atc tgt gcc ctt tgt gca aaa gat cct gta aag	3005
Leu Glu Tyr Met Ala Ile Cys Ala Leu Cys Ala Lys Asp Pro Val Lys	
940	945
950	
gag aga aga gct cat gct agg caa tgt ttg gtg aaa aat ata aat gta	3053
Glu Arg Arg Ala His Ala Arg Gln Cys Leu Val Lys Asn Ile Asn Val	
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965	
agg cgg gag tat ctg aag cag cat gca gct gtt agt gaa aaa tta ttg	3101
Arg Arg Glu Tyr Leu Lys Gln His Ala Ala Val Ser Glu Lys Leu Leu	
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tct ctt cta cca gag tat gtt gtt cca tat aca att cac ctt ttg gca	3149
Ser Leu Leu Pro Glu Tyr Val Val Pro Tyr Thr Ile His Leu Leu Ala	

985	990	995	1000	
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His Asp Pro Asp Tyr Val Lys Val Gln Asp Ile Glu Gln Leu Lys Asp				
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gtt aaa gaa tgt ctt tgg ttt gtt ctg gaa ata tta atg gct aaa aat				3245
Val Lys Glu Cys Leu Trp Phe Val Leu Glu Ile Leu Met Ala Lys Asn				
	1020	1025	1030	
gaa aat aac agt cac gct ttt atc aga aag atg gta gaa aat att aaa				3293
Glu Asn Asn Ser His Ala Phe Ile Arg Lys Met Val Glu Asn Ile Lys				
	1035	1040	1045	
caa aca aaa gat gcc caa gga cca gat gat gca aaa atg aat gaa aaa				3341
Gln Thr Lys Asp Ala Gln Gly Pro Asp Asp Ala Lys Met Asn Glu Lys				
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ctg tac act gtg tgt gat gtt gcc atg aat atc atc atg tca aag agt				3389
Leu Tyr Thr Val Cys Asp Val Ala Met Asn Ile Ile Met Ser Lys Ser				
	1065	1070	1075	1080
act aca tac agt ttg gaa tct cct aaa gac ccg gta cta cca gct cgt				3437
Thr Thr Tyr Ser Leu Glu Ser Pro Lys Asp Pro Val Leu Pro Ala Arg				
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Phe Phe Thr Gln Pro Asp Lys Asn Phe Ser Asn Thr Lys Asn Tyr Leu				
	1100	1105	1110	
cct cct gaa atg aaa tca ttt ttc act cct gga aaa cct aaa aca acc				3533
Pro Pro Glu Met Lys Ser Phe Phe Thr Pro Gly Lys Pro Lys Thr Thr				
	1115	1120	1125	
aat gtt cta gga gct gtt aac aag cca ctt tca tca gca ggc aag caa				3581
Asn Val Leu Gly Ala Val Asn Lys Pro Leu Ser Ser Ala Gly Lys Gln				
	1130	1135	1140	
tct cag acc aaa tca tca cga atg gaa act gta agc aat gca agc agc				3629
Ser Gln Thr Lys Ser Ser Arg Met Glu Thr Val Ser Asn Ala Ser Ser				
	1145	1150	1155	1160
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Ser Ser Asn Pro Ser Ser Pro Gly Arg Ile Lys Gly Arg Leu Asp Ser				
	1165	1170	1175	
tct gaa atg gat cac agt gaa aat gaa gat tac aca atg tct tca cct				3725
Ser Glu Met Asp His Ser Glu Asn Glu Asp Tyr Thr Met Ser Ser Pro				
	1180	1185	1190	
ttg ccg ggg aaa aaa agt gac aag aga gac gac tct gat ctt gta agg				3773
Leu Pro Gly Lys Lys Ser Asp Lys Arg Asp Asp Ser Asp Leu Val Arg				
	1195	1200	1205	
tct gaa ttg gag aag cct aga ggc agg aaa aaa acg ccc gtc aca gaa				3821
Ser Glu Leu Glu Lys Pro Arg Gly Arg Lys Lys Thr Pro Val Thr Glu				
	1210	1215	1220	

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18

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